UV Protection and Plastic

- UV absorption in plastics depends on:
  - Thickness
  - UV absorbing dyes in the plastic
- ANSI Z78.1 is a shatter resistance rating, not a UV blocking rating
- For the same thickness:
  - Polystyrene, transmits UV better than Plexiglas
  - Plexiglas transmits UV better than Lexan
  - Lexan is coated with UV absorbing dye.
- For plastic to highly absorb UV light, look for a yellowish or brownish tint
  - Orange tint is best
- Test for UV absorption – high quality white "bond" paper will fluoresce bright blue under UV light. If the plastic face shield is absorbing UV, the blue disappears